# MYRIOPODS FROM OKEFENOKEE SWAMP, GA., AND FROM NATCHITOCHES PARISH, LOUISIANA.

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The myriopods noted in the present paper compose a collection made in the Okefenokee Swamp by the Cornell University Expedition of 1912 and 1913 and one made by Mr. Karl P. Schmidt in Louisiana in 1915. The specimens of the second collection were all taken near the town of Creston in Natchitoches Parish. The species secured in the two localities are shown in the two separate lists below. Type specimens are placed in the Museum of Comparative Zoology, Cambridge, Massachusetts.

#### OKEFENOKEE SWAMP.

Scutigerella immaculata (Newport). Cleidogona sp. Leptodesmus okefenokensis sp. nov. Polydesmus sp. Spirobolus marginatus (Say). Spirobolus paludis sp. nov.

Cryptops hyalinus Say.
Theatops posticus (Say).
Hemiscolopendra punctiventris
(Newport).
Helembius nannus gen. et sp. nov.

#### Louisiana.

Callipus lactarius (Say).
Leptodesmus hispidipes (Wood).
Euryurus erythropygus (Brandt).
Euryurus louisianus sp. nov.
Fontaria lampra sp. nov.
Fontaria clara sp. nov.
Polydesmus serratus Say.
Nemasoma pium sp. nov.
Parajulus robustior sp. nov.
Cambala annulata (Say).
Spirobolus marginatus (Say).
Cryptops hyalinus Say.
Otocryptops sexspinosus (Say).

Theatops posticus (Say).
Scolopendra viridis Say.
Scolopendra heros Girard.
Hemiscolopendra punctiventris
(Newport).
Linotaenia iulva (Sager).
Arenophilus bipuncticeps (Wood).
Arenophilus watsignus Chamberlin.
Geophilus mordax Meinert.
Nannocrix porethus gen. et sp. nov.
Neolithobius mordax (L. Koch).
Neolithobius transmarinus (L. Koch).
Neolithobius helius sp. nov.

#### SYMPHYLA.

Scutigerella immaculata (Newport).

One specimen taken on Billy's Id., Okefenokee Swamp, in June, 1912.

#### DIPLOPODA.

#### Cleidogona sp.

A number of specimens not yet adult. All are in the stage possessing twenty-three segments and are not at this time determinable as to species with certainty. They were taken on Billy's Id., Okefenokee Swamp, in June, 1912.

## $Leptodesmus\ hispidipes\ (Wood).$

Numerous specimens taken near Creston, La., in February, March and May, 1915.

#### Leptodesmus okefenokensis sp. nov.

This is a smaller species than *hispidipes*, which it in general resembles. There is no trace of a median dorsal drak line, the dorsum being clear testaceous with no distinct markings excepting the carinæ which are lighter, yellow, though there is a rather vaguely lighter border caudally on some of the somites.

Somites in general smooth and shining, not at all tuberculate or

roughened.

Vertigial sulcus of head deep, extending ventrad to a little above level of antennæ, with two setæ on each side. Antennæ long, the

ultimate article and the distal end of the penult blackened.

Each end of first dorsal plate subacute, narrowly rounded. Posterior margin of second and third plates straight, the keels not at all produced caudad. Posterior corners of other plates produced caudad, more strongly so in posterior region. Pores opening laterally or slightly above the thickened border of keels which are slightly incurved at level of pores.

Anal tergite of usual form, distally truncate and a little decurved, with three long setæ on each side. Anal scale semicircular in outline. Anal valves mesally margined, the borders being strongly though

narrowly elevated.

Ventral plates without processes in male. Plates smooth and most

glabrous or nearly so.

In the gonopods of the male the proximal division is rounded. It bears two completely separated branches of which the smaller proximal one meets and crosses the one of opposite gonopod in the middle line. The principal branch of each gonopod is curved caudad and then dorsad, crossing the other one at its tip; distally it is bifurcate, the outer blade being much the more slender and bending first away and then again towards the proncipal process; the branch as a whole is densely setose on its mesal surface proximad of its middle, being elsewhere glabrous in striking contrast to the conditions in *hispidipes*, from which the bifurcate tip and other structural features also remove it.

Length, cir. 21 mm. Width, 3.7 mm.

Locality.—Okefenokee Swamp: Billy's Id., Dec., 1913. One male.

## Euryurus louisiana sp. nov.

In general appearance much like Euryurus erythropygus (Brandt) but appearing somewhat more slender and with the red carinæ more elevated. The carinæ have the tooth at the anterior corner proportionately larger and caudad of this less bulging ectad, the swollen border narrowing cephalad as in *erythropygus*; the caudal margin of the anterior somites is wholly smooth, not so irregularly crenulate or bluntly denticulate as usual in the latter species. The vertigial sulcus of the head ends in a rather deep depression at the level of the upper edges of the antennal sockets.

The gonopods of the male are strikingly different from those of erythropygus. The proximal division of each is very short, subcylindrical and glabrous. The distal division about its stouter proximal end extends at an angle ventrocaudad as a stout subcylindrical body which is subtruncate at the free end, which is darker and more highly chitinized; distal end concavely depressed or grooved, with a short, blade-like branch arising from the dorsomesal corner and curving a little dorsad of ectad above the main branch, the outer edge of which it does not reach. The enlarged base of the distal division is concavely depressed on its mesal surface, the depression densely clothed with long bristles. Midway between this basal depression and the distal end is a smaller depression similarly setose. The division is also less densely setose over the remaining surface excepting the chitinous distal end.

Length about 25 mm.

Locality.—La.: Creston. Feb. 27, 1915. One male. Also two broken females taken March 5, 1915.

## Euryurus erythropygus (Brandt).

Several specimens taken near Creston, March 5, 1915.

## Fontaria lampra sp. nov.

This species seems nearest to F. bimaculata (McNeil), described from Pensacola, Fla. The male gonopods are in general similar but the proximal common stalk of the principal, bifurcate spine, is relatively much longer, being as long as or longer than the branches; the shorter or inner branch is much broader, being as broad as the other, is slightly clavately expanded and at tip narrowed to a straight acute process, which does not curve toward the other branch. The process as a whole is bent upon itself almost at right angles at the level of bifurcation. The anterior or basal spine which in bimaculata is nearly as long as the principal one, in the present species is very much shorter, less than half as long, slender, acute, moderately curved.

The color is a very dull brown, the carinæ somewhat lighter, though not much contrasting in the types. In some the color is deep, almost black, with the carinæ not paler. A mid-dorsal dark stripe shows in

some.

The processes of the second coxæ in the male, slender, cylindrical, moderately long. Coxæ and ventral plates unarmed.

Vertex with two setigerous foveolæ on each side.

Length of male type, 38 mm.; width, 7.3 mm. Length of a female, 50 mm.; width, 9.2 mm.

Locality.—La.: Creston. Type and three other specimens taken March 26, 1915. Several other specimens taken on other dates in March.

#### Fontaria clara sp. nov.

This form is characterized in having the gonopods of the male of a very distinct type. The proximal end of the second or principal division of each gonopod is densely hirsute; the blade is in two branches, which are smooth and strongly chitinous; of these the ectal one curves first proximad (dorsad) on the ectal side of base and then bends in a semicircle and extends ventro-caudad subparallel with its basal portion, and is distally acutely acuminate; the mesal branch is larger and extends ventrad or ventrocaudad in general, with a slight double or sigmoid curve, the tip, which is flattened from side to side and is acute, weakly hooked or recurved. The basal process springs from the dorsomesal side of the base of the principal process; proximally it is flattened and narrows to an acute tip distad, somewhat twisted and crossing over the process from the other side, much shorter than the other processes.

When in full color the dorsum is very dark, black or nearly so, with the carine sharply contrasting by their lighter, in preserved specimens yellowish color. First tergite lighter along anterior border, but not

along the posterior. Under surface and legs yellowish.

Vertigial foveolæ two on each side. Vestigial sulcus ending below at the angle of an inversely v-shaped transverse sulcus between the antennæ.

Sternites unarmed. Processes of coxæ of second legs in the male stout, clavate, distally truncate.

Locality.—La.: Creston. Type, a male, taken March 5, 1915. Other specimens taken Feb. 25, 27 and 28, and March 21, 1915.

## Polydesmus serratus $\operatorname{Say}$ .

Several specimens taken in February, March and May, 1915, near Creston, La.

# Polydesmus sp.

One broken specimen, not fully mature and of uncertain species, taken in Mixon's Hammock, Okefenokee Swamp in June, 1912.

#### Nemasoma pium sp. nov.

This is a much larger species than the *minutum* of Brandt, so common in the northeastern states, the type being near 25 mm. in length, with a diameter of 1.6 mm.

The general color is brown, with a distinct middorsal longitudina black line and a series of black dots along each side over the repugnatorial glands. The posterior region of each segment is darker than the anterior and a line along the suture is blackish. No light areas, such as occur in sayanum.

Repugnatorial pores large, each contiguous with the suture, which is

moderately curved about it.

The lower end of the first tergite on each side narrows to an acute

angle just above which the anterior edge is moderately incurved.

The last tergite exceeds the anal valves. It narrows subtriangularly but is distally truncate, or very obtusely rounded, differing in this conspicuously from that of *minutum* and approaching that of *sayanum*.

Locality.—La.: Creston. March 21, 1915. One female.

#### Parajulus robustior sp. nov.

This is an exceptionally robust species. The general color is brown, each somite showing near its middle a solid annulus of a deeper, somewhat chestnut, color, and in front of this above and separated from it by a narrow pale stripe, a blackish band enclosing a series of light dots, while the anterior border above the level of the pores is bluish. There is a broad black band connecting the eyes. There is a median dorsal longitudinal black line and a series of small black dots along each side (the repugnatorial glands).

The cardo of the mandibles in the male strongly produced ventrad,

attaining to near lower level of labrum.

Each segmental suture is strongly angularly at the level of the pore. A characteristic feature is presented in the last tergite, which exceeds the anal valves, being produced into an acute spine, which is strongly, evenly decurved in the male, less so in the female; this spine

proportionately much shorter than in canadensis.

The first tergite in the female is angular below, but in the male the lower border is long, the edge horizontal. Strongly margined below. Without distinct striæ. Other segments strongly striate below. The second tergite in the female much extended below level of the first. In the male the second and third tergites are strongly angularly extended into a ridge along the lower level of each side.

The first legs of the male are strongly crassate, unusually long and

strongly hooked.

Promentum of gnathochilarium in male much enlarged; oblong

elliptic in form.

The species seems to be strongly distinct in the structure of the male gonopods. The sixth and seventh segments are moderately extended below. Of the anterior gonopods the anterior process on each side is strongly clavate, the distal portion above its base subconical, apically

narrowly rounded, bearing distally numerous long hairs. The posterior division is a stout, thicker and longer process; it is furrowed across the apex and down the caudal side and is bent moderately cephalad at the tip; the process is glabrous. The principal process of each posterior gonopod is a blade flattened from side to side and curving back caudad below the groove in the posterior piece of the anterior gonopod; it is not distally acute and is without branches or processes; it bears the seminal duct, which opens above a little proximad of the tip. A much smaller, straight, distally pointed process extends ventrad on the ectal side of the base of the principal process, its tip not attaining the lower level of the latter.

Length of a female near 53 mm.; width, 3.5 mm.

Locality.—La.: Creston. One specimen each on February 22, February 28 and March 5 (male, type) and two without date.

#### Cambala annulata (Say).

Numerous specimens taken near Creston, La., in February, March and May, 1915.

#### Spirobolus marginatus (Say).

One small specimen taken on Spring Creek, Ga., Aug. 27, 1913. Also three specimens taken near Creston, La., in March and April, 1915.

## Spirobolus paludis sp. nov.

This species in comparison with *S. marginatus* is distinguished in general appearance by its coloration, the sides contrasting through their paler brownish color with the mainly blackish dorsum, the black band across each somite covering the entire width dorsally, but narrowing down each side along the anterior margin and ending in a very acute point ventrally. The first dorsal plate is narrowly margined with a lighter color, both anteriorly and posteriorly and the other somites of the anterior region are margined caudally with lighter color, the marginal stripe obscure or absent dorsally in middle and posterior regions.

The antennal furrow on head below eye and across cardo of mandibles much shallower and less sharply limited than in *marginatus*, with no trace of the ridge bordering the furrow on the cardo ventrally though the ridge on the caudal side is present. Cardo lacking the small, very

acute ventrodistal process seen in the male marginatus.

Second segment much less produced below the first plate than in marginatus, not at all extending below level of general ventral surface

of the segment and not much lower anteriorly than posteriorly.

The modifications of the anterior legs in the male are very obviously different from those in *marginatus*. The first two pairs of legs are smaller in size than the others. The third pair of legs show ventrally a pair of rounded processes contiguous at the middle line, and bearing distally two or three long setæ. The coxal processes of the fourth legs

are higher and more narrowed distad, each bearing at apex a much narrower and paler mammiliform process. The coxal processes of the fifth pair are much longer, above base subcylindric, a concave depression on each side in an oblique anter-distal face. The processes of the sixth legs are somewhat shorter and each is cupped or concavely depressed on its distal end. The coxal processes of the seventh legs are much the largest; each broadly and deeply concave on its anterior face.

Repugnatorial pore in front of suture which it does not touch; the

suture angularly bent cephalad just above the level of the pore.

Number of somites 49-50. Length of the male (type) 45 mm.; diameter, 5.2 mm. A female paratype much larger with the dorsal transverse bands blacker and more sharply defined; length about 95 mm., with the width 8 mm.

Locality.—Ga.: Okefenokee Swamp: Mixon's Hammock (male type), June, 1912. The female was labeled simply "Okefenokee Swamp."

#### CHILOPODA.

#### Cryptops hyalinus Say.

Seven specimens taken in the Okefenokee Swamp, one in Mixon's Hammock, June, and six on Billy's Id., July, 1912. Also four specimens taken near Creston, La., in February and March, 1915.

## Otocryptops sexspinosus (Say).

Numerous specimens taken near Creston, La., in February and March, 1915.

# Theatops posticus (Say).

Several specimens taken in the Okefenkoee Swamp: Minnie Lake Run, June 14, one specimen; Billy's Id., June, six specimens; and four in Mixon's Hammock, June 5, 1912. Also five specimens taken near Creston, La., in February and March, 1915.

## Scolopendra viridis Say.

One specimen taken near Creston, April 20, 1915.

# Scolopendra heros Girard.

Two specimens taken near Creston, May 1, 1915.

# Hemiscolopendra punctiventris (Newport).

Five specimens taken on Billy's Id., Okefenokee Swamp, in June, 1912, and Dec., 1913. Also fourteen specimens taken near Creston, La., in March and April, 1915.

#### Linotaenia fulva (Sager).

One specimen taken at Creston, March 9, 1915.

## Arenophilus bipuncticeps (Wood).

One specimen from near Creston, La.

## Arenophilus watsingus Chamberlin.

One specimen from near Creston taken May 5, 1915.

## Geophilus mardax Meinert.

One specimen from near Creston, April 2, 1915.

## Nannocrix gen. nov.

Frontal suture not present. Prebasal plate developed and exposed. Basal plate trapeziform, narrowed cephalad.

Labrum free, tripartite. Lateral pieces armed with long spinous

processes.

First maxillæ with coxæ completely fused at middle and separated by suture from the distal divisions. Palpi biarticulate, the coxæ and femora with long membranous lappets at distal external angles.

Coxæ of second maxillæ completely fused. No trace of pleurosternal sutures. Palpus triarticulate; femur without distal process:

claw simple.

Coxosternum of prehensors with strongly developed and complete chitinous lines. Prehensors short, not attaining front margin of head; articles wholly unarmed within.

Dorsal plates strongly bisulcate.

Ventral pores on anterior plates in a transverse band in front of caudal margin and in two small anterior areas, one in each anterolateral corner. Anterior areas may disappear in caudal region, where pores of posterior band are also fewer and may be divided into two areas.

Last ventral plate very wide. Coxopleural pores few, obscure,

covered by plate.

Anal pores absent.

Anal legs unarmed, the claw being replaced by a minute, transparent terminal article.

Type.—Nannocrix porethus sp. nov.

## Nannocrix porethus ${\rm sp.\ nov.}$

Body moderately attenuated cephalad of middle, more strongly so caudad.

General color yellow, becoming dilute ferruginous in the anterior region and sometimes in the extreme posterior, the head deeper fer-

ruginous. Antennæ and legs yellow.

Cephalic plates short, equal in length and breadth. Greatest width near junction of posterior and middle thirds of length. Sides convexly rounded; caudal margin incurved; anterior margin in the form of a very obtuse angle. Sparsely and uniformly hirsute.

Basal plate trapeziform, the anterior margin widely evenly concave. About one-third as long on median line as the cephalic plate; three and a half times as wide as length at middle.

Antennæ moderately short, three times as long as the cephalic plate. Attenuated distad. The ultimate article equal in length to the two preceding taken together. Proximally sparsely hirsute, becom-

ing densely so distad with the hairs shorter.

Prosternum much wider than long (21:13). Anterior margin forming a very obtuse re-entrant angle with the edge smooth and strongly chitinized except at middle. Joints of prehensors very short, the distal end of the first one on the mesal side scarcely cephalad of the anterior edge of the prosternum. Claws when closed, falling much short of attaining the front margin of head. All joints wholly unarmed.

Prescuta in middle region a half or a little more as long as scuta, becoming very short cephalad and in the extreme posterior region.

First four spiracles broadly vertically elliptic, the others circular; decreasing in size gradually from the first, which is large, caudad.

First legs much reduced in size, the second ones being abruptly longer and stouter. Posterior pairs proportionately more slender than

the anterior and much longer.

None of the ventral plates at all sulcate. Ventral pores in anterior region distinct and numerous, forming a continuous transverse band posteriorly, which may extend slightly forward at the middle and a small subcircular area in each anterior corner. Posteriorly the anterior areas disappear and the pores of the posterior band become few and less distinct.

Last ventral plate very wide, wider than the preceding sternite. Sides strongly convex, converging caudad. Caudal margin straight.

Coxopleural pores obscure, covered by the ventral plate.

Anal legs much longer and stouter than the penult in both sexes. The sixth article abruptly much more slender than the fifth, the appendage replacing the claw minute.

Pairs of legs, 61-63. Length up to 45 mm.

Locality.—La.: Creston, March 5, March 9, and March 20, one specimen being secured on each of these dates.

## Helembius gen. nov.

Of the genera of smaller lithobiids previously known to occur in the southeastern United States this genus is like Nampabius and Garibius in having the number of articles in the antennæ definitely fixed at twenty. It differs from those genera in having the anal and penult legs of the male simply inflated and wholly without special lobes on either pair. In the sparse development of spines on the legs and their complete absence from the coxæ, the type species suggests Nampabius, which differs, aside from the possession of the highly characteristic lobe on the penult legs of the males, in the characteristic U-form of the median incision of the prosternum and in the small, not enlarged, single occllus.

In the general character of the spining of the legs the new form almost fully agrees with *Sigibius* occurring in the New England States; but the latter genus has the number of articles of the antennæ twenty-five. The body is slender and only slightly narrowed cephalad. First tergite narrower than head and than the third tergite.

Antennæ short; articles twenty.

Ocelli few, in two, or irregularly in three, series; the single ocellus enlarged.

Prosternal teeth 2+2, the line of apices distinctly recurved. Median

incision acute at bottom, V-shaped.

None of the dorsal plates at all produced. The posterior corners of the ninth, eleventh and thirteenth plates moderately oblique or excised.

Coxal pores small, circular, few, uniserrate.

Claw of female gonopods tripartite; lobes small, the lateral subequal. Basal spines 2+2, moderately stout, though less so than in *Tidabius*, the sides from base to apical division parallel, the apical acuminate part very short.

Coxe of legs all wholly unarmed. Claws of anal and penult legs two. Ventral spines of anal legs, 0, 1, 1, 1, 0; dorsal, 0, 0, 2, 0, 0, (female) or 0, 0, 1, 0, 0, (male). Ventral spines of penult legs, 0, 1, 1, 1, 0; dorsal,

0, 0, 1, 0, 0.

Anal legs of male short, strongly and uniformly inflated; the penult legs more moderately inflated, the tarsal joints slender; both pairs wholly lacking special furrows or processes.

Very small, the type species near 6 mm. (female) or less (male) in

length.

Type.—Helembius nannus sp. nov.

## Helembius nannus sp. nov.

General color brown of slight chestnut tinge, the head more deeply colored. Antennæ paler, yellowish at tips. Legs yellow, but the posterior pairs darker, excepting the tarsi, which are bright orange or yellow.

Head much wider than long (about 34:25). Hairs sparse, of moderate length. On caudal portion two sublongitudinal impressions

diverging cephalad.

Antennæ very short; articles, excepting second and ultimate, very short, the ultimate equalling the two preceding taken together. Hairs, excepting the proximal articles, dense, of moderate length, setose.

Ocelli in female type six or seven in number, thus, 1+2, 3 or 1+2, 3, 1. The single ocellus greatly exceeding the others in size, subvertically elongate, and the ocelli of the upper series exceeding those of the lower.

Prosternum 1.5 times wider than long. Distance between chitinous spots near 3.57 times the dental line. Outer prosternal tooth on each side extending farther forward than the mesal one, making the line of the apices decidedly recurved. Sides slanting directly from the ectal tooth, a little incurved.

First dorsal plate 1.7 times wider than long, widest anteriorly; sides converging caudad, evenly convex. Posterior corners of ninth and eleventh dorsal plates distinctly obliquely excised more on caudal side, those of the thirteenth plate less distinctly so.

Coxal pores small and circular; 2, 3, 3, 2.

Spines of anal legs,  $\frac{0, 0, 2, 0, 0}{0, 1, 1, 1, 0}$  or  $\frac{0, 0, 1, 0, 0}{0, 1, 1, 1, 0}$  (male), claws 2; of

penult,  $\frac{0, 0, 1, 0, 0}{0, 1, 1, 1, 0}$ , claws 2; of thirteenth,  $\frac{0, 0, 1, 0, 0}{0, 0, 1, 1, 0}$ ; of the twelfth

 $\frac{0, 0, 0, 0, 1}{0, 0, 1, 1, 0}$ ; of the tenth,  $\frac{0, 0, 0, 1, 1}{0, 0, 1, 1, 0}$ .

Claw of female gonopods of uniform width, tripartite, the lobes very short, the lateral equal and the median one but little exceeding these. Inner and outer basal spines equal or very nearly so; acuminate distal division very short, subobtuse.

Length of female, 6 mm.; of male only 4 mm.

Locality.—Ga.: Okefenokee Swamp; Billy's Id., June, 1912. One female and one male.

## Neolithobius helius sp. nov.

General color of dorsum brown, the head chestnut. Antennæ chestnut, paler, yellowish, distally. Legs yellowish, the posterior pairs darker, brown to chestnut, but with the distal joints bright orange or vellowish.

Head subcordate, but anteriorly truncate between the antennæ and the caudal margin excepting at ends straight or nearly so. Wider than

long in the ratio 7.5:6.

Antennæ moderately long, reaching to the seventh pediferous segment. Articles typically from thirty to thirty-three in number, short and very short, the ultimate variable in proportionate length, sometimes equalling the two preceding ones and sometimes much shorter. Subdensely setose distally, more sparsely setose proximally.

Prosternum with distance between chitinous spots three times the length of the dental line. Lateral sloping margins conspicuously incurved. Prosternal teeth mostly rather small, mostly 5+5, but also 5+6, 6+6, 6+7, and 7+7, the most mesal teeth on each side often much reduced and lower in position. Mesal incision very narrow.

Ocelli forming a compact oblong area. Ocelli arranged mostly in four to six longitudinal series with the single ocellus much larger, pale:

e. g., one 6, 5, 5, 4, and one 6, 7, 6, 5, 3.

First dorsal plate across its anterior end only a little narrower than

the head and equal in width to the third plate.

Coxal pores very small, circular. Examples of arrangement and number: 4, 5, 5, 4; 5, 6, 6, 4.

Spines of the anal legs  $\frac{1,\,0,\,3,\,1,\,0}{0,\,1,\,3,\,3,\,2}$ , claw single; penult,  $\frac{1,\,0,\,3,\,3,\,1}{0,\,1,\,3,\,3,\,2}$ , claw single; thirteenth,  $\frac{1,\,0,\,3,\,2,\,1}{0,\,1,\,3,\,3,\,2} - \frac{1,\,0,\,3,\,2,\,2}{0,\,1,\,3,\,3,\,2}$ ; twelfth,  $\frac{1,\,0,\,3,\,2,\,2}{0,\,0,\,2,\,3,\,2}$  second to eleventh,  $\frac{0,\,0,\,3,\,2,\,2}{0,\,0,\,2,\,3,\,2}$ ; first,  $\frac{0,\,0,\,3,\,2,\,1}{0,\,0,\,2,\,3,\,1}$ . Last three pairs of coxæ laterally armed.

Claw of female gonopods rather small, tripartite, the lobes acute, the median obviously longer and stouter than the others. Basal spines 2, 2; moderately slender, in ventral view with sides parallel to acute distal portion.

In the male the anal legs have the third article strongly clavately enlarged distad of the base, the thickening chiefly represented by a high ridge situated dorsomesally and bearing distally a stout spine bifid serrate at the apex somewhat as in *xenopus*, and a patch of long bristles. This rounded, ridge-like lobe extends mesad well beyond inner side of the succeeding or fourth article. Fourth article conspicuously excavated and longitudinally furrowed along the dorsomesal surface as usual, but the joint as a whole not bowed; at ends and along sides of furrow are long setæ.

Length 14 to 18 mm.

Locality.—Okefenokee Swamp: Billy's Id., nine specimens taken in June; and Honey Id., three specimens taken May 31 and June 1, 1912.

## Neolithobius mordax (L. Koch).

One specimen, with head missing, referable to this species taken at Creston.

# Neolithobius transmarinus (L. Koch).

Numerous specimens taken in February and March, 1915, near Creston, La.